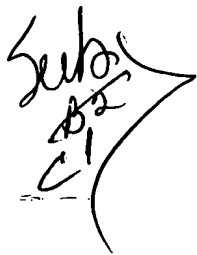
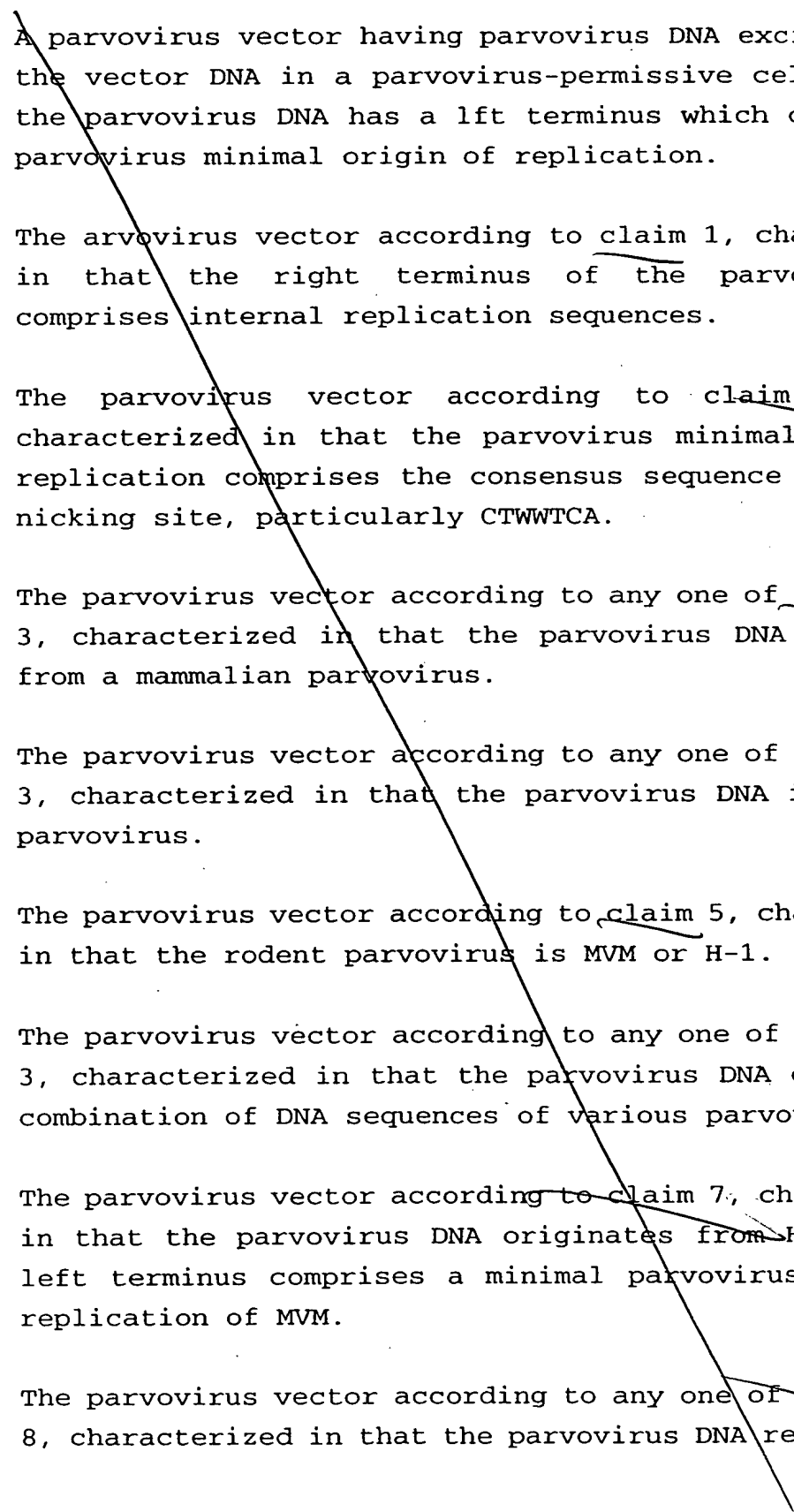


Claims:

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1. A parvovirus vector having parvovirus DNA excisable from the vector DNA in a parvovirus-permissive cell, wherein the parvovirus DNA has a left terminus which comprises a parvovirus minimal origin of replication.
 2. The parvovirus vector according to claim 1, characterized in that the right terminus of the parvovirus DNA comprises internal replication sequences.
 3. The parvovirus vector according to claim 1 or 2, characterized in that the parvovirus minimal origin of replication comprises the consensus sequence of an NS1 nicking site, particularly CTWWTCA.
 4. The parvovirus vector according to any one of claims 1 to 3, characterized in that the parvovirus DNA originates from a mammalian parvovirus.
 5. The parvovirus vector according to any one of claims 1 to 3, characterized in that the parvovirus DNA is a rodent parvovirus.
 6. The parvovirus vector according to claim 5, characterized in that the rodent parvovirus is MVM or H-1.
 7. The parvovirus vector according to any one of claims 1 to 3, characterized in that the parvovirus DNA comprises a combination of DNA sequences of various parvoviruses.
 8. The parvovirus vector according to claim 7, characterized in that the parvovirus DNA originates from H-1 and its left terminus comprises a minimal parvovirus origin of replication of MVM.
 9. The parvovirus vector according to any one of claims 1 to 8, characterized in that the parvovirus DNA region coding

for the capsid proteins is partially or fully replaced by an exogeneous DNA.

10. The parvovirus vector according to claim 9, characterized in that the exogeneous DNA codes for a polypeptide usable in a treatment.
11. The parvovirus vector according to claim 10, characterized in that the polypeptide is a cytokin or a toxin.
12. The parvovirus vector according to claim 11, characterized in that the cytokin is a chemotactic polypeptide.
13. The parvovirus vector according to claim 12, characterized in that the chemotactic polypeptide is MCP-1.
14. The parvovirus vector according to any one of claims 1 to 13, characterized in that it is present as parvoviral particle.
15. A system comprising the parvovirus vector according to any one of claims 9 to 13 and a cell expressing the capsid proteins of parvovirus.
16. The system according to claim 15, characterized in that the expression of the capsid proteins is controlled by a helper plasmid containing an SV40 origin of replication and the cell expresses an SV40 large T antigen.
17. The system according to claim 15, characterized in that the DNA coding for the capsid proteins is under the control of the parvovirus promoter P38.
18. A method of producing the parvoviral particle according to claim 14, comprising the transfection of a parvovirus-

permissive cell with a parvovirus vector according to any one of claims 9 to 13, the cell expressing the capsid proteins of a parvovirus, and the isolation of the parvoviral particle.

19. Use of the parvovirus vector according to any one of claims 9 to 14 for gene therapy.

20. Use according to claim 19, characterized in that the gene therapy is carried out in the case of tumor diseases.

11. October 1999